ABSTRACT OF THE DISCLOSURE

A plating apparatus comprises a plating unit having a plating bath for holding a plating liquid therein, and a plating liquid monitoring unit having a liquid chromatography device and an arithmetical unit. The liquid chromatography device serves to separate and quantify an additive in a sample of the plating liquid. The arithmetical unit serves to compare a quantified value of the additive with a given concentration predetermined for the additive and to produce an output signal representing the compared result. The plating apparatus further comprises an additive replenishing unit for adding a solution including the additive from an additive tank to the plating liquid in the plating bath based on the output signal from the arithmetical unit in the plating liquid monitoring unit.